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(71)Applicant : MATSUSHITA ELECTRIC IND CO LTD

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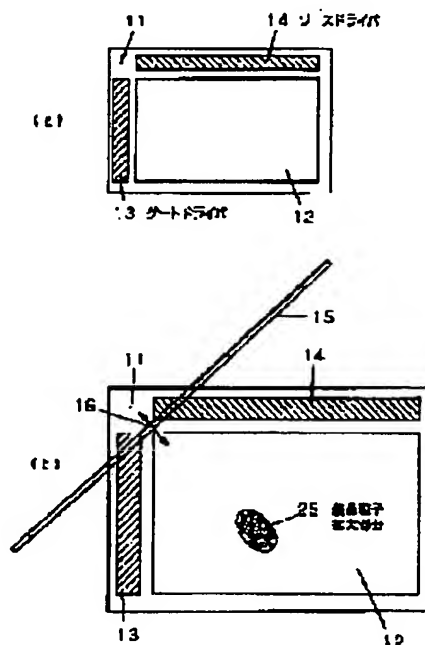
(72)Inventor : OGAWA KAZUFUMI
ADACHI KAZUYASU

(54) THIN FILM TRANSISTOR, MANUFACTURE THEREOF, LIQUID CRYSTAL DISPLAY DEVICE USING THE SAME AND MANUFACTURE THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a group of high-performance thin film transistors with favorable uniform displaying performance on a large screen and a liquid crystal display device using it when thin film transistors using polycrystalline silicon are used as a driving circuit part in the liquid crystal display device.

SOLUTION: In a thin film transistor having a polycrystalline silicon thin film formed on a transparent insulating substrate 11 as an active region, crystal grains of the polycrystalline silicon thin film are grown anisotropically in a specific direction in the surface, so as to make silicon crystal grains a slender shape, and make the gate length direction of the thin film transistor approximately 45° to the longitudinal direction of the crystal grains, so that characteristic variations of all the TFT formed in an array substrate are minimized.



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KOREAN PATENT ABSTRACTS

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(71)Applicant: LG.PHILIPS LCD CO., LTD.
(72)Inventor: JUNG, YUN HO

(54) MANUFACTURING METHOD OF LIQUID CRYSTAL DISPLAY FOR THIN FILM TRANSISTOR

(57) Abstract:

PURPOSE: An LCD is provided to confirm the equality of a device by forming a thin film transistor with its channel direction equalized through the whole thin film.

CONSTITUTION: The LCD manufacturing method is composed of the steps of: forming by photo-etching a polycrystalline silicon thin film crystallized by growing a silicon grain to a first direction to equalizing the physical property of a thin film transistor formed through the whole substrate; and manufacturing to have a certain size of a slope toward the first direction through the whole substrate.



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